

150407

2/16/90

Steve —

Looks like we will be OK
unless we get a "gully
washer". We still need a plan
for quickly flooding the
construction.

TO: Bob Roddy
FROM: John Lotzy
DATE: February 13, 1990
SUBJECT: Sewer Capacity

=====Max

On 2/8/90 a meeting was held to discuss the progress and plans for the sewer system repairs and modifications being done by Weis Engineering. The question was raised as to whether the one 36" sewer line will be adequate for storm periods during the nine months the repairs are in progress. The meeting attendees requested flow data from the P-Chem plant to aid in determining the probability of a sewer line backup.

The peak daily flow recorded from 1981 - 1989 is 26.0 mgd. However, peak hourly flow data is only available from 1987 - 1989. The peak hourly flow for this period was recorded on 7/6/87. On that day, lift pumps 1, 2, and 3 ran for a period of 3.8 hours simultaneously; #1 pump to the process and #2 and #3 pumps to the storage lagoons. Assuming maximum pumping capacity at 9500 gpm, this equates to 28,500 gpm peak hourly flow. The plant rain gauge showed 2.6 inches recorded for 7/16/87, and total wastewater (daily) flow was 18.8 mgd. On 3/20/89, 3.00 inches of rain was recorded, and three lift pumps were ran for a period of 3.6 hours. Total flow for that day was 16.1 mgd. There were five other occurrences of three lift pumps in operation, all for less than one hour duration. Data is summarized on the attached table. Also included is a summary of high rain days (over one inch) since 1987.

According to Arnold Czechowitz, the by-pass line to the South side of the bay was closed February 13, 1989. Therefore, we have been running with one 36" line to the plant since that time. Since there was a high flow situation on March 20, 1989, there were apparently no major effects from that occurrence.

If I can be of further assistance, or you have any questions concerning this data, please contact me.

cc: Max McComb - Monsanto
Steve Smith - Monsanto
Ray Erhard - Big River
Dave Adams - Ethyl Petroleum
George Schillinger - General Manager
Paul Tandler - Cerro Copper
Paul Weis - P. H. Weis & Associates

WGK 1484231

HIGH FLOW OCCURRENCES (3 PUMPS RUNNING)

<u>DATE</u>	<u>FLOW (mgd)</u>	<u>RAIN (inches)</u>
7/6/87	18.8	2.60
6/30/87	14.4	3.00
7/4/87	11.8	1.40
7/7/87	14.4	1.30
8/8/87	14.0	2.50
8/26/87	15.0	2.60
3/20/89	16.1	3.00

HIGH RAIN DAYS SINCE 1987

<u>DATE</u>	<u>FLOW (mgd)</u>	<u>RAIN (inches)</u>
1/31/88	11.4	2.25
1/19/88	10.6	2.3
1/5/89	9.6	1.4
3/20/89	16.1	3.0

WGK 1484232